



1.27mm (.050") Pitch Ultra-Mate™ Micro-D Subminiature

Circuit Series For Through-Hole PC Board Mounting

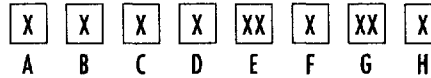
FEATURES AND SPECIFICATIONS

Ultra-Mate offers the widest variety of PCB mounted connectors, of which 5 styles are currently cataloged. All have mating interfaces per MIL-C-83513 and 24 AWG exit leads. Solder or Tin dip.

Interface Series

Styles 6 and 16 are available in the MIL spec "M" and the intermateable plastic "B" series. The other styles are available in the "M" and "B" and also the narrower MIL spec plastic "P" series and its intermateable metal shell "A" series. Styles 1, 4 and 5 are qualified to MIL-C-83513. Surface mount versions available in selected layouts. Please contact factory.

ORDERING INFORMATION AND DIMENSIONS



A
Circuit Series
C

B
Interface Connector Series
P, A, M, B

C
Style
1 Right-Angle Mount
6 Vertical Mount
8 Right-Angle Mount
11 Right-Angle Mount, Alternate of Style 1
16 Vertical Mount
18 Right-Angle Mount

D
Insulator Material
R Ryton*, PPS, MIL-M-24519 GST 40F
L LCP: Vectra† 130

E
Size
Number of Contacts: 9, 15, 21, 25, 31, 37, 51, 100

F
Contact Type
P Pin
S Socket

G
Mounting/Coupling Hardware
0 None
07 Jackpost
Note: See Page U-8 for Details

H
Optional Threaded Insert
Modification, standard is Through Hole

Modification Codes
Modifications are available, contact factory

* Ryton is a registered trademark of Phillips Petroleum Company
† Vectra is a registered trademark of Hoechst Celanese Corporation

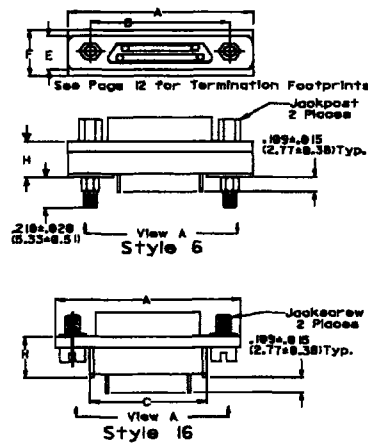




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**Circuit Series
Styles 6 and 16, Vertical**

Style 6 is a vertical mount unit having jackposts. Style 16 is a vertical mount unit having jackscrews. Both of these connectors are recommended for new design over the older Style 4. Advantage: the termination footprint is contained within the envelope of the connector body, reducing space needed.



See termination footprints on page U-11

ORDERING INFORMATION AND DIMENSIONS

Size	Dimension					
	A	B	C	E	F	H
9	19.94 (.785)	14.35 (.565)	10.16 (.400)	7.82 (.308)	7.87 (.310)	8.38 (.330)
15	23.75 (.935)	18.16 (.715)	13.97 (.550)	7.82 (.308)	7.87 (.310)	8.38 (.330)
21	27.56 (1.085)	21.97 (.865)	17.78 (.700)	7.82 (.308)	7.87 (.310)	8.38 (.330)
25	30.10 (1.185)	24.51 (.965)	20.32 (.800)	7.82 (.308)	7.87 (.310)	8.38 (.330)
31	33.91 (1.335)	28.32 (1.115)	24.13 (.950)	7.82 (.308)	7.87 (.310)	8.38 (.330)
37	37.72 (1.485)	32.13 (1.265)	27.94 (1.100)	7.82 (.308)	7.87 (.310)	8.38 (.330)
51	36.45 (1.435)	30.86 (1.215)	26.54 (1.045)	8.92 (.351)	10.16 (.400)	8.76 (.345)
100	55.12 (2.170)	45.72 (1.800)	39.37 (1.550)	10.01 (.394)	12.95 (.510)	10.16 (.400)

Micro/Nano Interconnections



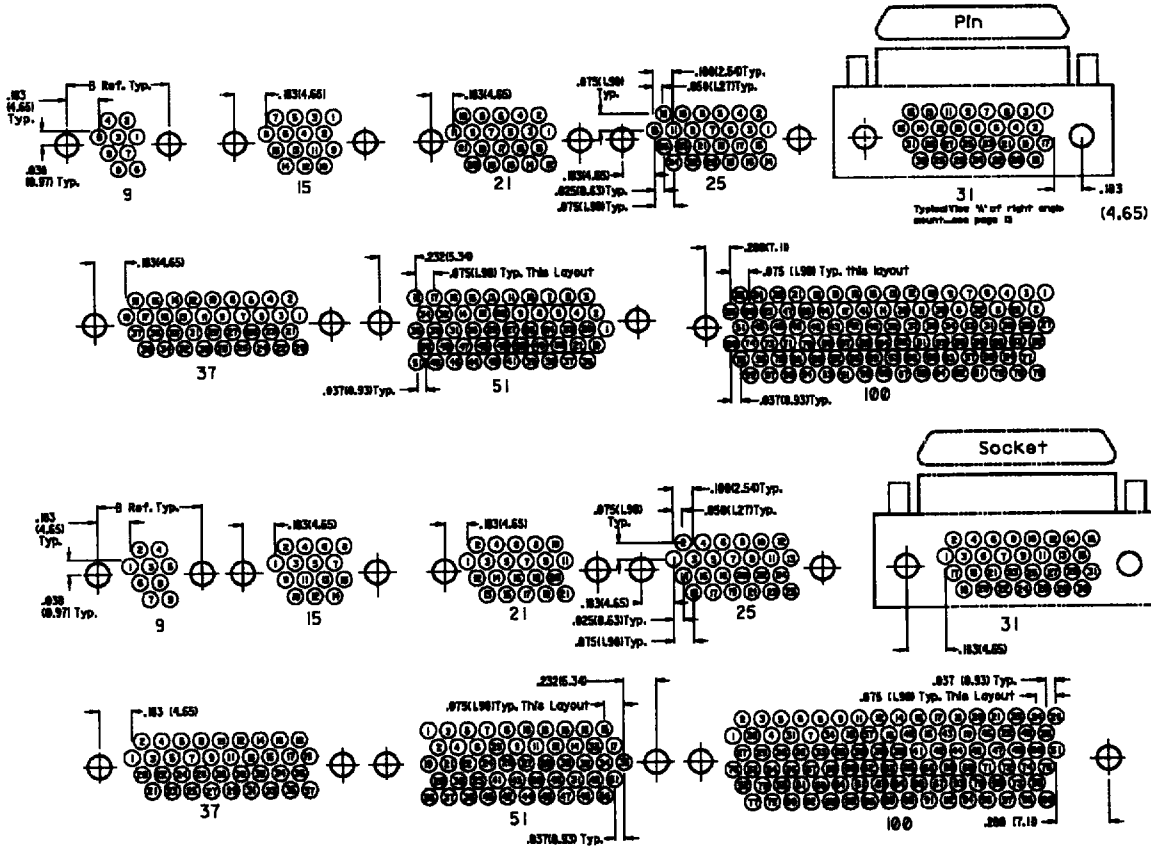


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Circuit Series Styles 6 and 16 Footprint Terminations

Spacing between rows is 1.90mm (.075") on all layouts;
spacing between contacts in any one row is 2.54mm (.100") on
the 9 through 37 layouts and 1.90mm (.075") on the 51 and
100 layouts.

Termination Footprints (Pin Side) viewing connector, not circuit

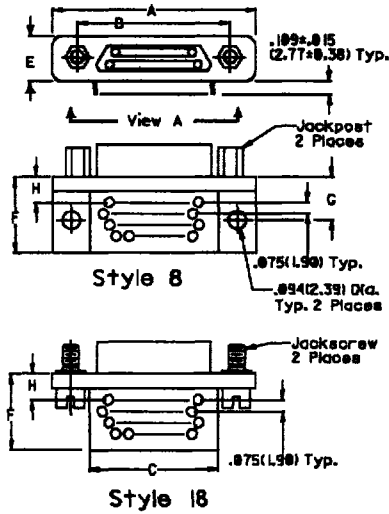




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**Circuit Series
Styles 8 and 18, Right Angle**

Style 8 is right-angle mount unit with jackposts. Style 18 is a right-angle mount unit with jackscrews. Recommended for new design over Styles 1 and 5. Advantage: termination footprints are contained within the envelope of the connector body for space savings.



See termination footprints on page U-13

ORDERING INFORMATION AND DIMENSIONS

Style 8				
Size	Dimension			
	A	B	C	E (A and P)
9	19.94 (.785)	14.35 (.565)	10.16 (.400)	5.34 (.218)
15	23.75 (.935)	18.16 (.715)	13.97 (.550)	5.34 (.218)
21	27.56 (1.085)	21.97 (.865)	17.78 (.700)	5.34 (.218)
25	30.10 (1.185)	24.51 (.965)	20.32 (.800)	5.34 (.218)
31	33.91 (1.335)	28.32 (1.115)	24.13 (.950)	5.34 (.218)
37	37.72 (1.485)	32.13 (1.265)	27.94 (1.100)	5.34 (.218)
51	36.45 (1.435)	30.86 (1.215)	26.54 (1.045)	6.60 (.260)
100	55.12 (2.170)	45.72 (1.800)	39.37 (1.550)	

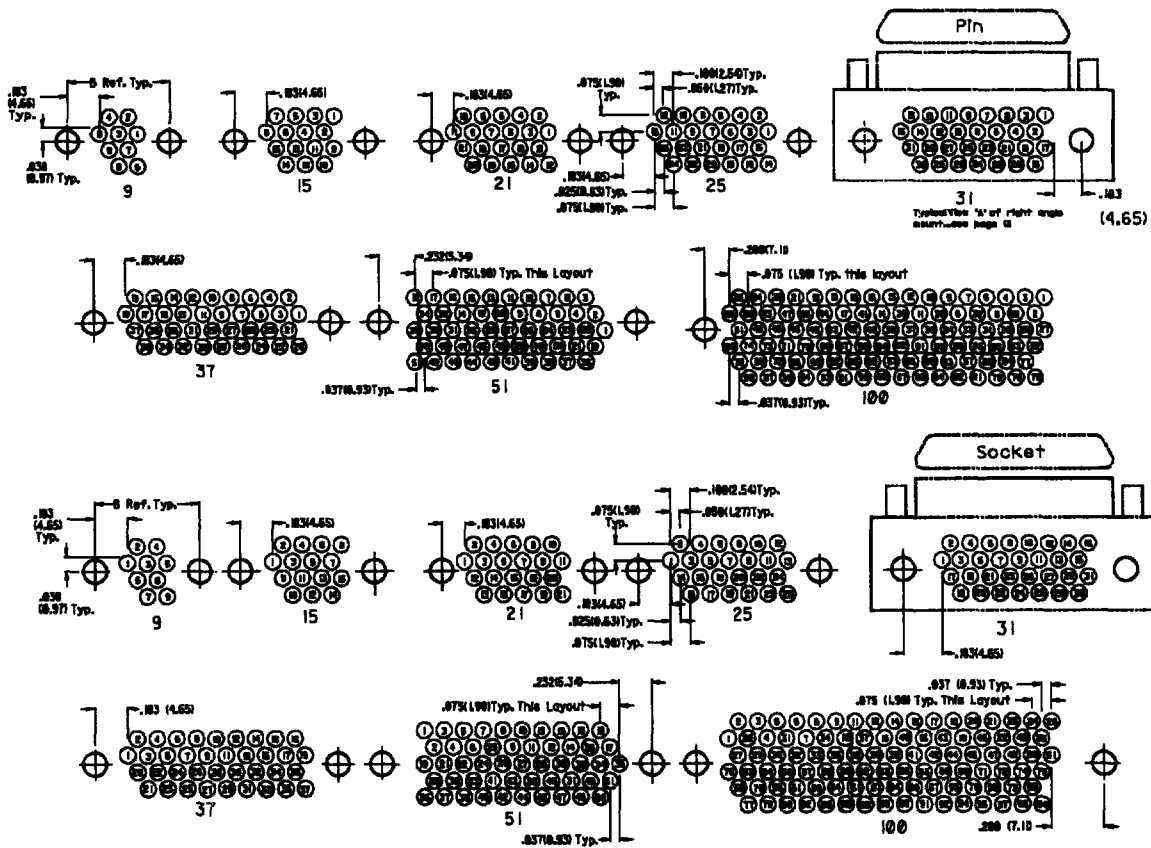
Style 18				
Size	Dimension			
	E (M and D)	F	G	H
9	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
15	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
21	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
25	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
31	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
37	7.82 (.308)	10.41 (.410)	6.35 (.250)	3.50 (.138)
51	8.92 (.351)	12.70 (.500)	7.49 (.295)	3.68 (.145)
100	10.01 (.394)	15.62 (.615)	8.89 (.350)	4.14 (.163)



molex 1.27mm (.050") Pitch
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Circuit Series
Styles 8 and 18
Termination Footprints

Spacing between rows is 1.90mm (.075") on all layouts; spacing between contacts in any one row is 2.54mm (.100") on the 9 through 37 layouts and 1.90mm (.075") on the 51 and 100 layouts.



FEATURES AND SPECIFICATIONS

Style 1 (CBR) is the original right-angle mount PC board connector having 90° termination exit leads on a 2.54 (.100) x 2.54mm (.100") grid. Mounting through-holes are provided. Jackposts to receive jackscrews are optional. Style 11 is an industry alternate for Style 1. It is identical except for the setback of the footprints from the metal shell. All dimensions are the same except F, G and H. Style 1 is qualified to slash 10 through slash 15 of MIL-C-83513. Style 11 is an industry alternate to Style 1, but is not qualified to MIL-C-83513.

For new applications, we suggest you consider Style 8 or 18.



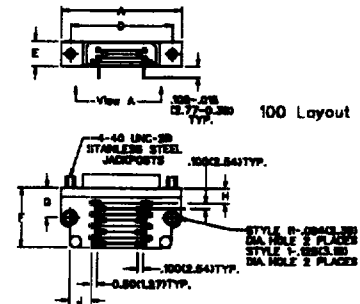
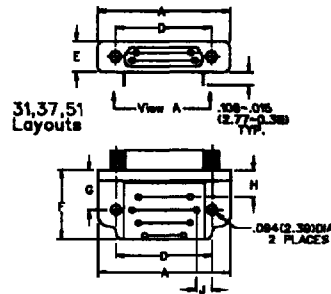
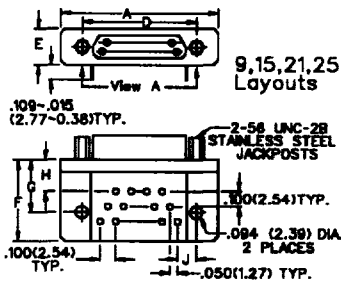
1.27mm (.050") Pitch

Ulti-Mate™

Micro-D Subminiature

Circuit Series

Styles 1 and 11, Right Angle



See termination footprints on page U-15

ORDERING INFORMATION AND DIMENSIONS

Size	Style 1							
	Dimension							
	A	D	E (A and P)	E (M and B)	F	G	H	J
9	19.94 (.785)	14.35 (.565)	5.54 (.218)	7.82 (.308)	10.67 (.420)	6.35 (.250)	5.84 (.230)	2.11 (.083)
15	23.75 (.935)	18.16 (.715)	5.54 (.218)	7.82 (.308)	10.67 (.420)	6.35 (.250)	3.30 (.130)	2.74 (.108)
21	27.56 (1.085)	21.97 (.865)	5.54 (.218)	7.82 (.308)	10.67 (.420)	6.35 (.250)	3.30 (.130)	2.11 (.083)
25	30.10 (1.185)	24.51 (.965)	5.54 (.218)	7.82 (.308)	10.67 (.420)	6.35 (.250)	3.30 (.130)	2.11 (.083)
31	33.91 (1.335)	28.32 (1.115)	5.54 (.218)	7.82 (.308)	13.21 (.520)	6.35 (.250)	3.30 (.130)	4.70 (.158)
37	37.72 (1.485)	32.13 (1.265)	5.54 (.218)	7.82 (.308)	13.21 (.520)	6.35 (.250)	3.30 (.130)	4.65 (.183)
51	36.45 (1.435)	30.86 (1.215)	6.62 (.260)	8.92 (.351)	16.51 (.650)	7.62 (.300)	3.81 (.150)	2.74 (.108)
100	54.99 (2.165)	45.72 (1.800)		10.01 (.394)	25.40 (1.000)	10.16 (.400)	5.08 (.200)	6.98 (.275)

Size	Style 11		
	Dimension		
	F	G	H
9	10.16 (.400)	5.84 (.230)	5.33 (.210)
15	12.19 (.480)	8.38 (.330)	5.33 (.210)
21	12.19 (.480)	8.38 (.330)	5.33 (.210)
25	12.19 (.480)	8.38 (.330)	5.33 (.210)
31	15.24 (.600)	8.38 (.330)	5.33 (.210)
37	15.24 (.600)	8.38 (.330)	5.33 (.210)
51	18.03 (.710)	9.14 (.360)	5.33 (.210)
100	25.65 (1.010)	10.67 (.420)	5.33 (.210)

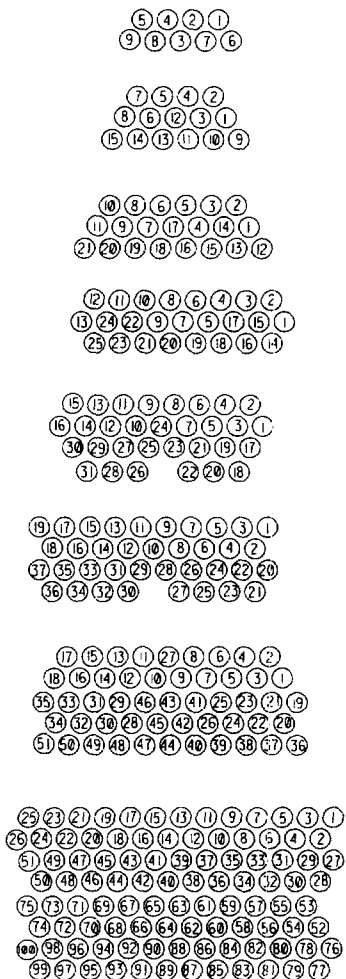
Note: All connectors have a recessed "washout" area of 0.38mm (.015") min.



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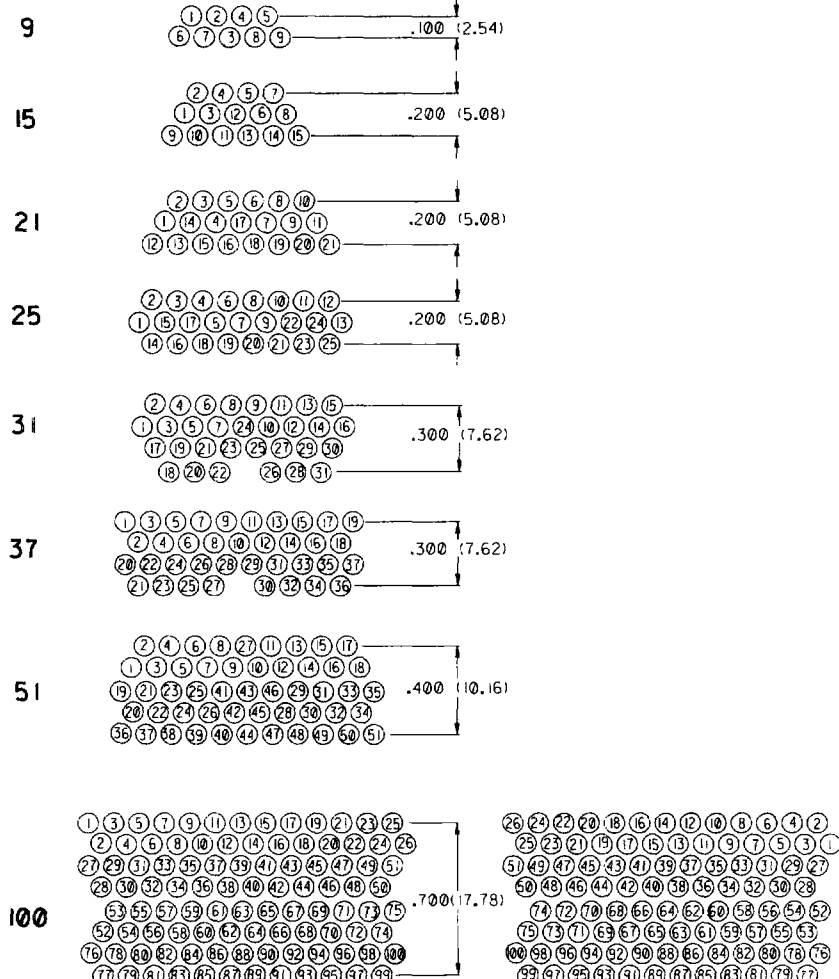
**Circuit Series
 Styles 1 and 11
 Termination Footprints**

View A Pin Side



Style I Pin

View A Socket Side



Style I & II Socket

Style II Pin

